

MPM 1D Opener

Simplify

i) $(+3) - (-2) = (+3) + (+2)$
 $= +5$

ii) $(-2) - (-6) = (-2) + (+6)$
 $= +4$

Solve

iii) $3x + 2 = 16$ iv) $\frac{3n-6}{2} = 15$

$3x = 16 - 2$
 $3x = 14$
 $\frac{3x}{3} = \frac{14}{3}$
 $x = \frac{14}{3}$

$\frac{3n-6}{2} = 15$
 $3n-6 = 15 \times 2$
 $3n-6 = 30$
 $3n = 30 + 6$
 $3n = 36$
 $\frac{3n}{3} = \frac{36}{3}$
 $n = 12$

Feb 5-7:24 AM

MPM 1D Opener

Simplify

i) $(+3) + (+2) = +5$ *Add the Opposites*

ii) $(-2) + (+6) = +4$

Solve

iii) $3x + 2 = 16$ iv) $\frac{3n-6}{2} = 15$

$3x = 16 - 2$
 $3x = 14$
 $\frac{3x}{3} = \frac{14}{3}$
 $x = \frac{14}{3}$

$\frac{3n-6}{2} = 15$
 $3n-6 = 15 \times 2$
 $3n-6 = 30$
 $3n = 30 + 6$
 $3n = 36$
 $\frac{3n}{3} = \frac{36}{3}$
 $n = 12$

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Algebra Substitution

$r = 6$ p23

i) $3r - 1$ ii) $6(r-6)$

$= 3(6) - 1$ $6(6-6)$
 $= 18 - 1$ $6(0)$
 $= 17$ $= 0$

iii) $2r^2 - 1$

$= 2(6)^2 - 1$
 $= 2(36) - 1$
 $= 72 - 1$
 $= 71$

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Rates and Ratios

Ratio

$3:7$, $3 \div 7$, $\frac{3}{7}$

Rates

$\$9.60/\text{hr}$ $80\text{km}/\text{hr}$

per 1 unit

Special K $\$3.50/\text{box}$ Kellogg's Corn Flakes $\$4.75/\text{box}$

$\$3.50/300\text{g}$ $\$4.75/550\text{g}$

$\$0.0116/\text{g}$ $\$0.0086/\text{g}$

$1.16/100\text{g}$ $0.86/100\text{g}$

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Percentages

$73/100 = 0.73$ or 73%

$14/21 = 0.67$ 67%

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Exponent

exponential form 4^3 — exponent (power)

base 4

$4 \times 4 \times 4$ — repeated multiplication

64 — standard form

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Pythagorean Formula

$c^2 = a^2 + b^2$

$h^2 = a^2 + b^2$

$a^2 + b^2 = h^2$

$3^2 + 4^2 = h^2$

$9 + 16 = h^2$

$\sqrt{25} = \sqrt{h^2}$

$5 = h$

$a^2 + b^2 = h^2$

$3^2 + b^2 = 7^2$

$b^2 = 7^2 - 3^2$

$b^2 = 49 - 9$

$b^2 = 40$

$b = \sqrt{40}$

$b = 6.3$

Text

p. 27, 27

q. 2, 3, 4, 7

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Ratios

p. 15 1 b, 2 a b, 3 a c 5 a - f

6 a - e

p. 23 q. 3, 4 a-d substitution

$1 : 6 : 3$

$3 : 10 : 9$

$\div 3$

$\times 3$

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Pythag

p. 27 4 a) c), b

Exp

p. 17 1 a, c

4 c, d

5 a d g

9

Sep 8-9:02 AM